

AWEA Wind Technical Standards Committee  
Minutes  
Monday, February 24, 2020, 1:00 PM – 5:00 PM, PST  
Hotel Del Coronado, Room: Crystal/Continental & Skype Call

## **AGENDA**

1. Welcome: Brian Kramak, UL
2. Roll Call: AWEA Staff
3. Review and Approve Agenda: Brian Kramak, UL
4. Approval of November meeting minutes: Brian Kramak, UL
5. AWEA Update: AWEA Staff
  - a. SpecBuilder Platform
6. Membership Applications: Brian Kramak, UL
  - a. Avangrid Renewables
7. Open Ballots: AWEA Staff
  - a. Approval of Draft November 2018 Meeting Minutes
  - b. Approval of Draft February 2019 Meeting Minutes
  - c. Approval of Draft May 2019 Meeting Minutes
  - d. Approval of Draft August 2019 Meeting Minutes
  - e. Approval of Mike Optis as the Co-Chair of the TR-1 Subcommittee
  - f. Approval of proposed 2020 Meeting Schedule
  - g. Approval of membership application, RE InnovationsBallots Coming Soon:
  - h. Approval of WTSC Electrical Task Force with Chris Petrola, Acciona Energy, as Chair
  - i. Approval of Update to TR-1 Scope
  - j. Approval of 61400-24 Scope
  - k. Approval of SWT-1 Scope
8. Subcommittee and Task Force Updates
  - a. AWEA-1 Subcommittee (61400-1), Chair: Dan Brake, NextEra Energy
  - b. AWEA-24 Subcommittee (61400-24), Chair is needed
  - c. Offshore Wind Subcommittee: Rain Byars, Shell Wind Energy
  - d. Structures Subcommittee, Chairs: Kirk Morgan, Barr Engineering Company and Jomaa ben Hassine, Kleinfelder, Inc. Dyrasat Consulting LLC
  - e. TR-1 Subcommittee, Chairs: Brian Kramak, UL and Mike Optis, NREL
  - f. SWT-1 Subcommittee, Chairs: Brent Summerville, Small Wind Certification Council; Mike Bergey, Bergey Windpower Co.; and Jeroen van Dam, NREL
  - g. Electrical Task Force, Chair: Chris Petrola, Acciona Energy
9. Proposed 2020 Meeting Schedule
  - a. Monday, June 1, 2020 – During CLEANPOWER Conference, Denver, CO
  - b. Tuesday, August 11, 2020 – Teleconference
  - c. Thursday, November 5, 2020 – Teleconference
10. Additional Items
  - a. Demo of SpecBuilder site, AWEA Staff
11. Adjourn

## **MINUTES**

This meeting met quorum. 21 voting members out of 34 attended.

- Review and Approve Agenda
  - Motion Linkesh Diwan, 2<sup>nd</sup> Mike Edds, approved.
- Approval of November meeting minutes
  - Motion Linkesh Diwan, 2<sup>nd</sup> Mike Edds, approved.
- AWEA Update

- AWEA staff provided an updated on the SpecBuilder Platform.
- Membership Applications
  - Avangrid Renewables
  - Motion Linkesh Diwan, 2<sup>nd</sup> Mike Edds, approved.
- Open Ballots
  - The group reviewed the list of open ballots. Voting members were reminded to cast votes on open ballots.
- Subcommittee and Task Force Updates
  - AWEA-1 Subcommittee (61400-1), Chair: Dan Brake, NextEra Energy
    - The group is looking at 61400-1, to see what is needed to make US standard or US Annex.
    - Dan noted his group only found 3 sections that had conflicts.
    - The group has developed section 0, the Annex; limited changes to section: 7, 8, 10.
    - The edits are ready to incorporate into 61400-1.
    - Dan to submit scope for standard, AWEA to create ballot scope, once this ballot is closed PINS is submitted.
    - The proposed changes will be submitted as a reference only, note to be added to the document that listed as a reference only, this doc will be submitted separately for ballot and public comment.
    - Question on NEC, requirements of NEC would not be appropriate for a standard b/c it's not always required, in some places it's a requirement, so the group decided that it shouldn't be a requirement as part of 61400-1.
  - AWEA-24 Subcommittee (61400-24), Chair is needed
    - IEC 61400-24 was published in December.
    - NFPA added a clause to NFPA 780 that addresses wind, <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=780>
    - Need a volunteer to lead this effort to adapt -24 and properly reference US standards including NFPA 780.
    - UL will also need to be addressed.
    - Brian McNiff happy to participate but does not want a leadership role.
      - Jomaa Ben Hassine has someone in mind.
  - Offshore Wind Subcommittee: Rain Byars, Shell Wind Energy
    - Rain filling in for Walt Musial, NREL.
    - Formed 2017, 5 working groups: OCRP, Floating, Geotech, Metocean, Submarine Cables.
    - Groups looking at all offshore assets, state, federal waters, and fresh waters covering lifecycle of the wind turbine.
      - Documents provide a roadmap referencing existing standards.
    - Progress: OCRP has a draft that's ready for subcommittee review, other 4 working groups on different schedule, but looking to have drafts ready this year.
      - Mike Edds: Question on cables, there should be some collaboration with IEEE on coordinating between IEC and IEEE.
      - Masoud Sharifi: IEEE is behind IEC in a big gap.
      - Sandy Butterfield: solution is for this group to adopt the relevant IEC standards,
        - Mike Edds: It's not that simple. It differs depending on location.
      - Recap next steps: Mike and Brian to summarize issue, connect with Submarine Cables Working Group.
  - Structures Subcommittee, Chairs: Kirk Morgan, Barr Engineering Company and Jomaa ben Hassine, Kleinfelder, Inc.
    - Looking to do an 61400-6 adaptation.
    - Half-way through the process of editing the document.
    - Looking to have something ready by June.
    - Will have document scope ready for ballot.
    - Next project: technical report foundation gaping.
    - Kirk: Question for AWEA on ASCE and partnership for standards.

- Kirk and Jomaa, met (not on behalf of AWEA) with ASCE, Bob Daly, have a working relationship.
- TR-1 Subcommittee, Chairs: Brian Kramak, UL and Mike Optis, NREL
  - Working to have draft ready for June.
- SWT-1 Subcommittee, Chairs: Brent Summerville, Small Wind Certification Council; Mike Bergey, Bergey Windpower Co.; and Jeroen van Dam, NREL
  - Jeroen noted the group has a meeting scheduled for Friday February 28<sup>th</sup> as part of the DWEA meetings in DC.
  - In the last year the group has gathered input on items that are adding costs without much benefit and avoid certification and innovation or add costs without benefit.
  - On Feb 13<sup>th</sup> a group of industry leaders (OEMs certification bodies, test labs, installer, consultant) met to review those items and come up with suggested changes, which will be presented February 28 for feedback and buy in from larger group.
  - Some examples:
    - Removing most of the wind turbine classes Leave II and S, but likely increase turbulence for Class II.
    - Reducing the duration test, this was done after reviewing the results of 29 test reports.
    - Introduce a surveillance program on installed turbines.
    - Look at developing microturbine class.
    - Change the reference AEP from 5 to 6 m/s annual average wind speed.
  - Looking to get something in place that works for the industry.
  - Looking to have something final by August.
  - The group will submit a scope for the document, once scope is ballot is closed, a PINS.
- Electrical Task Force, Chair: Chris Petrola, Acciona Energy
  - The original scope is a whitepaper, list out standards that apply to utility scale focus.
  - Chris noted he is having trouble getting this group going, needs a volunteer for a co-chair.
    - Chris Petrola motioned to have co-chair, Linkesh Diwan 2<sup>nd</sup>, approved.
  - Motion to nominate Mike Edds and co-chair
    - Chris Petrola motioned to have Mike Edds as co-chair, Linkesh Diwan 2<sup>nd</sup>; approved.
- Adjourn
  - Motion to adjourn
    - Linkesh Diwan motion, Chris Petrola 2<sup>nd</sup>, approved.

**ACTION ITEMS:**

- Create an approval ballot for draft November 2019 meeting minutes.
- Create an approval ballot for Mike Edds as co-chair of Electrical Task Force.
- Create an approval ballot for the SWT-1 standard scope and when ballot is closed and approved AWEA to submit the PINS.
- Create an approval ballot for the AWEA-1 standard scope and when ballot is closed and approved AWEA to submit the PINS.
- Create an approval ballot for the Structures standard scope and when ballot is closed and approved AWEA to submit the PINS.

**ATTENDEES:**

Company	Member	Type
Acciona Energy USA Global LLC	Petrola, Christopher	Primary
Advanced Insulation Systems LLC	Sherman, Mike	Alternate
Barr Engineering Company	Morgan, Kirk	Primary
Boulder Wind Consulting	Butterfield, Sandy	Primary
Bureau of Safety and Environmental Enforcement	Cushing, John	Primary

Clear Wind	McCabe, Matt	Primary
DNV GL	Griffin, Dayton (Vice-Chair)	Primary
GE Renewable Energy	Helton, Mark	Primary
Kleinfelder, Inc.	Ben Hassine, Jomaa	Primary
Leeward Renewable Energy	Grife, Ronald	Primary
National Renewable Energy Laboratory	van Dam, Jeroen	Primary
National Renewable Energy Laboratory	Veers, Paul	Alternate
NextEra Energy Inc.	Brake, Dan	Primary
Pattern Energy Group LP	Edds, Michael	Primary
Siemens Gamesa Renewable Energy	Sharifi, Masoud	Primary
Spire Engineering Services LLC	Sheppard, Robert	Primary
Terra-Gen LLC	Hu, Yuanlong	Primary
The Hartford Steam Boiler Inspection & Insurance Company	Diwan, Linkesh	Primary
U.S. Department of Energy	Ahlgimm, Jim	Primary
U.S. Department of Energy	Derby, Michael	Alternate
UL LLC	Kramak, Brian (Chair)	Primary
Vestas North America	Taylor, Trevor	Primary
Wsb-Hawaii	Bollmeier, Warren	Primary

**Observers/Guests**

<b>Company</b>	<b>Name</b>
3S Americas	Mone, Chris
ABS	Samuelsson, Lars
BP Wind	Ducker, Chris
BP Wind	Baze, Rick
EAPC Wind Energy	Sherwin, Robert
ENERCON	Daqoune, Tarik
Equinor ASA	Delp, Leif
McNiff Light Industry	McNiff, Brian
nVent	Holm, Dan
Shell Wind Energy Inc.	Byars, Rain

**NOT IN ATTENDANCE**

<b>Company</b>
ArcVera Renewables
Avanti Wind Systems
Bergey Windpower Co. Inc.
Elevator Industry Work Preservation Fund
Energy Systems Integration Group (ESIG)
Exponent
Intertek
Keystone Engineering Inc.
NRG Systems
Penn State University
Small Wind Certification Council
University of Texas at Austin
V-Air Wind Technologies